



Ki Hajar Dewantara's Educational Philosophy for Human Capital Development in Society 5.0

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ABSTRACT

This study examines the relevance of Ki Hajar Dewantara's educational philosophy to human capital development in Society 5.0. Amid rapid technological transformation, education must prepare individuals not only with technological competencies but also with ethical awareness, creativity, independence, and adaptability. This study aims to develop a conceptual understanding of how Ki Hajar Dewantara's educational principles can inform human capital development in an increasingly digital and human-centered society. Using a qualitative literature review and conceptual analysis, this study examines relevant scholarly literature on Ki Hajar Dewantara's educational philosophy, human capital development, and the challenges of Society 5.0. The analysis focuses on three fundamental principles: *Ing Ngarsa Sung Tuladha*, *Ing Madya Mangun Karsa*, and *Tut Wuri Handayani*. The findings suggest that these principles offer a philosophical foundation for integrating technological competencies with character formation, collaborative learning, learner autonomy, and lifelong learning. Furthermore, they emphasize the importance of educational practices that balance technological advancement with human values and social responsibility. This study contributes a conceptual interpretation of Indonesian educational philosophy as a potential framework for developing human capital in Society 5.0. However, further empirical research is needed to investigate how these principles can be implemented effectively in educational settings and how they influence learners' competencies, character, and readiness for technological and social change.

Keyword: *Ki Hajar Dewantara, Human Capital, Society 5.0.*

A. Introduction

The rapid development of digital technology, artificial intelligence, and interconnected systems has transformed society's expectations of human capabilities (Shanmugasundaram & Tamilarasu, 2023; Taufikin et al., 2025). In the context of Society 5.0, individuals are expected not only to possess technological competence but also to demonstrate critical thinking, creativity, collaboration, independence, adaptability, and strong moral character (Amiri et al., 2024; Sanjalawe et al., 2025; Taufikin et al., 2026). Education therefore plays a strategic role in developing human beings who can respond effectively to technological change while maintaining human values (Bozkurt et al., 2024; Malinetskiy & Sirenko, 2020). However, technological advancement without adequate character development may contribute to problems such as excessive dependence on technology, weakened self-control, and reduced social responsibility. Consequently, human capital development in Society 5.0 should not be limited to technical competencies but should also emphasize the development of ethical, independent, creative, and socially responsible individuals (Lubis & Lubis, 2024; Shahidi Hamedani et al., 2024).

The central issue emerges when human capital development places greater emphasis on academic achievement and technological skills than on character, independence, and social responsibility (Prasetyo et al., 2025; Ramadhani et al., 2024). Theoretically, education should develop individuals holistically, whereas social reality indicates a gap between the demand for digital competencies and the readiness of learners and educators to maintain strong values and character (Maidugu & Isah, 2024; Taufikin, 2021a). Educational transformation toward Society 5.0 requires teachers and educational institutions to possess adequate digital competencies while simultaneously maintaining human-centered educational practices. This situation demonstrates that technology alone cannot serve as the foundation for human capital development. A comprehensive educational framework is needed to integrate technological competence with humanity, cultural values, independence, and social responsibility (Chee et al., 2025; Chiu, 2026; Khoeroni et al., 2026). Ki Hajar Dewantara's educational philosophy provides an important conceptual foundation for addressing this gap.

Previous studies have examined Ki Hajar Dewantara's educational philosophy from various perspectives. His principles of *Ing Ngarsa Sung Tuladha*, *Ing Madya Mangun Karsa*, and *Tut Wuri Handayani* position educators as role models, motivators, and facilitators of students' development. Other studies have demonstrated that the principle of *Tut Wuri Handayani* is consistent with student-centered, contextual, collaborative, and independence-oriented learning (Taufikin, 2021b; Yusuf-LN et al., 2023). Research has also highlighted the relevance of Ki Hajar Dewantara's ideas to character education and contemporary educational challenges. These studies demonstrate that his philosophy remains relevant

despite emerging technological transformations (Marwany et al., 2023; Pribadi et al., 2024). Nevertheless, many existing studies primarily discuss his philosophy in relation to character formation, teaching practices, or educational values separately. The connection between his educational philosophy and broader human capital development in Society 5.0 remains insufficiently explored.

Studies concerning Ki Hajar Dewantara's relevance to the Society 5.0 era have increasingly emphasized the importance of integrating local values, humanistic education, social literacy, and technology (Dewi et al., 2025; Khasanah et al., 2026). However, the relationship between his educational principles and key dimensions of human capital, including competence, character, creativity, independence, adaptability, and lifelong learning, has not yet been comprehensively synthesized (Putri et al., 2025). Therefore, this study contributes a conceptual analysis that connects Ki Hajar Dewantara's educational philosophy with the demands of human capital development in Society 5.0 (Walad et al., 2024). The novelty of this study lies in positioning his educational philosophy not merely as a historical educational legacy but as a conceptual framework for developing human capital capable of adapting to technological transformation while maintaining humanity, cultural identity, ethical awareness, and social responsibility.

Based on these gaps, this study examines the relevance of Ki Hajar Dewantara's educational philosophy to human capital development in Society 5.0. The research addresses the following questions: How can the fundamental principles of Ki Hajar Dewantara's educational philosophy be understood within contemporary education? How are the principles of Ing Ngarsa Sung Tuladha, Ing Madya Mangun Karsa, and Tut Wuri Handayani relevant to the competencies and character required in Society 5.0? These questions are important because human capital development requires an educational approach that goes beyond producing technologically competent individuals (Becker, 1993). It must also cultivate people who can think critically, make responsible decisions, collaborate effectively, adapt to change, and continuously develop their potential in response to social and technological transformation.

Furthermore, this study asks: How can Ki Hajar Dewantara's educational philosophy contribute to the development of adaptive, independent, ethical, and human-centered human capital in Society 5.0? This question arises from the need to connect an Indonesian educational philosophy developed within a historical context with the challenges of an increasingly digital society. Previous research has demonstrated that Ki Hajar Dewantara's ideas emphasize contextual learning, collaboration, independence, exemplary leadership, and the development of learners' potential (Marwany et al., 2023; Widodo et al., 2024). However, a more focused synthesis is needed to explain how these principles can function as a conceptual foundation for developing human capital that responds to the demands

of Society 5.0. This study therefore seeks to bridge traditional educational values and contemporary technological demands.

This study argues that Ki Hajar Dewantara's educational philosophy has significant conceptual relevance to human capital development in Society 5.0 because it places human development at the center of education while emphasizing exemplary leadership, motivation, independence, creativity, responsibility, and the development of individual potential. *Ing Ngarsa Sung Tuladha* can be associated with exemplary leadership and ethical conduct, *Ing Madya Mangun Karsa* with collaboration, motivation, and creativity; while *Tut Wuri Handayani* emphasizes independence and continuous support for individual development (Wahyuni et al., 2023). Thus, the provisional argument of this study is that integrating Ki Hajar Dewantara's educational philosophy with digital competencies can provide a meaningful conceptual foundation for education that develops adaptive, competent, ethical, and human-centered human capital in the era of Society 5.0.

This study employed a qualitative literature review and conceptual analysis to examine the relationship between Ki Hajar Dewantara's educational philosophy and human capital development in Society 5.0. Data were obtained from scholarly books, peer-reviewed journal articles, and relevant academic publications addressing Ki Hajar Dewantara's educational thought, human capital development, and Society 5.0. Literature was selected based on its relevance to the research objectives, academic credibility, and contribution to the central concepts under investigation. The collected literature was analyzed thematically to identify key educational principles, recurring concepts, and their connections with technological competence, ethical awareness, creativity, independence, and lifelong learning. Particular attention was given to the principles of *Ing Ngarsa Sung Tuladha*, *Ing Madya Mangun Karsa*, and *Tut Wuri Handayani*. The findings were synthesized conceptually to develop an interpretive framework for human capital development in Society 5.0.

B. The Relevance of Ki Hajar Dewantara's Educational Philosophy to Human Capital Development

Ki Hajar Dewantara's educational philosophy offers a human-centered perspective for understanding human capital development in Society 5.0. The principle of *Ing Ngarsa Sung Tuladha* emphasizes exemplary leadership, ethical conduct, and the importance of educators as role models in shaping responsible individuals. Meanwhile, *Ing Madya Mangun Karsa* highlights the role of motivation, collaboration, and creativity in fostering active participation and problem-solving abilities. Furthermore, *Tut Wuri Handayani* promotes learner autonomy, confidence, and the continuous development of individual potential through supportive educational environments. These three principles can be interpreted as

interconnected foundations for developing human capital that integrates intellectual capabilities, social competence, and moral responsibility. In the context of Society 5.0, their relevance lies in balancing technological competence with human values. Nevertheless, empirical studies are necessary to evaluate their practical implementation and educational outcomes.

The three well-known principles of Ki Hajar Dewantara Ing Ngarsa Sung Tuladha, Ing Madya Mangun Karsa, and Tut Wuri Handayani illustrate different dimensions of human capital development. Ing Ngarsa Sung Tuladha emphasizes that individuals in leadership positions should provide good examples. In the educational context, teachers are expected to demonstrate integrity, discipline, responsibility, and ethical behavior. This principle contributes to the development of character-based human capital because learners acquire values not only through verbal instruction but also through observing and experiencing exemplary behavior.

Meanwhile, Ing Madya Mangun Karsa emphasizes the educator's role in generating motivation and initiative while working together with learners. This principle is closely related to collaboration, creativity, communication, and problem-solving skills. In the context of Society 5.0, these competencies are increasingly important because complex social and technological problems cannot be addressed solely through individual knowledge. Human capital needs to be capable of working collaboratively, exchanging ideas, and creating innovative solutions. Therefore, this principle demonstrates that Ki Hajar Dewantara's philosophy accommodates competencies that are essential for contemporary human development.

The third principle, Tut Wuri Handayani, emphasizes providing support from behind while allowing learners to develop their independence. The analysis shows that this principle has a strong relationship with self-directed learning, autonomy, and lifelong learning. In a rapidly changing technological environment, individuals cannot rely entirely on teachers or institutions to provide all the knowledge they need (Becker, 1993; Budiarti et al., 2019). They must be able to identify learning needs, acquire new knowledge, evaluate information, and continuously improve their competencies. Thus, Tut Wuri Handayani can be interpreted as an educational foundation for developing individuals who are independent and capable of adapting to continuous change.

These findings indicate that Ki Hajar Dewantara's philosophy contains several dimensions relevant to human capital development: character and ethics, leadership, collaboration, creativity, independence, adaptability, and lifelong learning. The significance of these dimensions becomes stronger in Society 5.0, where technological development is expected to support human well-being rather than replace human roles. Consequently, human capital development should maintain a balance between technological competence and human values. Ki Hajar

Dewantara's philosophy provides such a balance by positioning human development as the central purpose of education.

C. The Relevance of Ki Hajar Dewantara's Philosophy in Responding to the Challenges of Society 5.0

In the context of Society 5.0, Ki Hajar Dewantara's educational philosophy offers a humanistic orientation for promoting the responsible integration of technology into education. The principle of *Ing Ngarsa Sung Tuladha* highlights educators' responsibility to demonstrate ethical digital behavior, critical thinking, and responsible technology use. Meanwhile, *Ing Madya Mangun Karsa* emphasizes collaborative learning, creativity, and collective problem-solving, enabling learners to address complex challenges through meaningful interaction. Furthermore, *Tut Wuri Handayani* encourages learner autonomy, self-directed learning, and continuous competence development in response to technological change (Asad et al., 2026; Butler & Winne, 1995; Craft, 2025). These principles suggest that digital competence should not be developed independently of ethical judgment, social responsibility, and cultural awareness. Instead, technological proficiency should be integrated with human values to support holistic human capital development. Nevertheless, this interpretation remains conceptual and requires empirical investigation to determine its practical applicability and effectiveness across diverse educational contexts.

The literature analysis suggests that Ki Hajar Dewantara's human-centered educational philosophy can provide a conceptual response to these challenges. His view of education emphasizes the development of learners according to their potential, nature, and social environment. This approach is relevant because technological progress should not determine the direction of human development. Instead, technology should function as a tool that supports human potential and social welfare. From this perspective, digital competence needs to be accompanied by ethical awareness, critical thinking, empathy, responsibility, and cultural consciousness.

The principle of *Ing Ngarsa Sung Tuladha* is particularly relevant to the ethical dimension of digital transformation (Aldhafeeri & Alotaibi, 2023; Dewi et al., 2025). In an environment where information can spread rapidly through digital platforms, educators and leaders have an important responsibility to model responsible technology use. Teachers can demonstrate how to evaluate information critically, respect intellectual property, communicate ethically, and avoid harmful digital behavior. Thus, exemplary conduct becomes increasingly important because learners are exposed to diverse information and behavioral models through digital environments.

The principle of *Ing Madya Mangun Karsa* is also relevant to collaborative learning in the digital era. Technology provides opportunities for learners to collaborate beyond geographical boundaries through digital platforms (Duarte et al., 2025; Habibi et al., 2025). However, meaningful collaboration requires communication, mutual respect, creativity, and shared responsibility. Teachers

therefore need to act as facilitators who encourage learners to participate actively, exchange perspectives, solve problems, and create knowledge collectively. In this sense, technology becomes a medium for strengthening human interaction rather than replacing it.

Furthermore, Tut Wuri Handayani corresponds with the need for learner autonomy in a rapidly changing knowledge environment. The abundance of digital information means that learners must be able to determine which information is credible, identify their learning needs, and develop their competencies independently. Teachers should therefore gradually shift from being the primary source of information to becoming facilitators who provide direction, encouragement, and constructive feedback. This approach supports lifelong learning, which is an important requirement for human capital development in Society 5.0.

The overall interpretation of the findings demonstrates that the relevance of Ki Hajar Dewantara's philosophy does not lie in rejecting technological advancement but in providing an ethical and humanistic orientation for its use. His philosophy can be integrated with digital literacy, critical thinking, creativity, collaboration, and problem-solving without abandoning character and cultural values. Therefore, education in Society 5.0 should seek a balance between technological competence and human values. Ki Hajar Dewantara's philosophy offers a conceptual framework in which technology serves human development, while education remains responsible for cultivating individuals who are capable, independent, ethical, adaptive, and socially responsible.

D. Conclusion

This study concludes that Ki Hajar Dewantara's educational philosophy remains conceptually relevant to human capital development in Society 5.0. The principles of *Ing Ngarsa Sung Tuladha*, *Ing Madya Mangun Karsa*, and *Tut Wuri Handayani* provide complementary perspectives on ethical leadership, collaboration, creativity, learner autonomy, and lifelong learning. Collectively, these principles offer a human-centered educational foundation for integrating technological competence with character development, social responsibility, and individual potential. This perspective highlights the importance of balancing technological advancement with human values to prepare individuals for the evolving demands of a digitally connected society.

Nevertheless, the findings should be interpreted within the limitations of a conceptual study based on literature analysis. The study does not establish the practical effectiveness of these principles or demonstrate their direct impact on human capital outcomes. Future research should employ empirical approaches to investigate their implementation in diverse educational settings and examine their

relationships with digital competence, ethical awareness, creativity, independence, and lifelong learning. Such investigations could strengthen the practical relevance of Ki Hajar Dewantara's educational philosophy and inform the development of educational strategies responsive to the challenges of Society 5.0.

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